Title (en)

POSITION MEASURING METHOD AND POSITION MEASURING SYSTEM USED IN THE MULTIPLICATION OF SIGNAL PERIODS

Title (de)

POSITIONSMESSVERFAHREN UND POSITIONSMESSSYSTEM ZUR SIGNALPERIODEN-VERVIELFACHUNG

Title (fr)

PROCEDE DE MESURE DE POSITION ET SYSTEME DE MESURE DE POSITION DESTINES A LA MULTIPLICATION DE PERIODES DE SIGNAUX

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2004085971A1] The invention relates to a position measuring device and a position measuring system (1) that are used to process signals (SIN, COS), which represent the displacement (8) of a scale gradation (4) relative to a signal generation unit (7). To increase the resolution of the signals (SIN, COS), output signals (SIN', COS'), which have a higher frequency or multiplied number of signal periods in relation to the input signals (SIN, COS), are generated by the device (1). This enables evaluation units (3) that are connected downstream to record the position and speed of the scale gradation (4) more accurately. The number of signal periods is increased by the calculation of a position signal (POS) with a subsequent filtration or error correction from the input signals (SIN, COS) and by the reading of stored tables of output signals (SIN', COS') in accordance with the calculated position signal (POS).

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Citation (search report)

See references of WO 2004085971A1

Citation (third parties)

Third party :

- DE 19815438 A1 19981022 - HEIDENHAIN GMBH DR JOHANNES [DE]
- DE 10138640 C1 20030109 - FRAUNHOFER GES FORSCHUNG [DE]

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EP3124920A1; US8191399B2; US9927234B2; DE102022004196A1

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